

1 1. A near object detection system comprising:
 2 a plurality of sensors, each of the sensors for providing detection coverage in a
 3 predetermined coverage zone and each of the sensors comprising:
 4 a transmit antenna for transmitting a first RF signal;
 5 a receive antenna for receiving a second RF signal; and
 6 a receiver circuit, coupled to said received antenna; and
 7 means for sharing information between each of the plurality of sensors.

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 1 2. The system of claim 1 wherein said means for sharing information between each of the
 2 plurality of sensors comprises a central sensor processor coupled to each of said plurality
 3 of sensors.

1 3. The system of claim 1 wherein said means for sharing information between each of the
 2 plurality of sensors comprises:
 3 a sensor processor disposed in each of said sensor circuits; and
 4 communication means for allowing information to be shared between the sensor
 5 processors.

1 4. A near object detection system for a vehicle, comprising:
 2 a plurality of sensors, each of the sensors for providing detection coverage in
 3 respective coverage zones disposed about a perimeter of the vehicle,
 4 wherein each of the sensors has a predetermined range, angular extent, and velocity
 5 range based upon respective coverage zone requirements.

1 5. The system according to claim 4, wherein the coverage zones include two of more of
 2 adaptive cruise control/night vision zone, lane keeping zone, road departure zone, side object
 3 detection zone, backup and parking aid zone, and stop and go zone.

1 6. A near object detection system, comprising:
 2 a plurality of sensors, each of the sensors for providing detection coverage in a

predetermined coverage zone;

a multiple hypothesis tracker for processing data from the plurality of sensors to make a hypothesis about data association, resolution, and/or data quality;

a prediction filter coupled to the multiple hypothesis tracker for scheduling the plurality of sensors;

a public track former including a discrimination processor for generating data to control operation of the plurality of sensors;

an estimator/best state vector subsystem coupled to the public track former; and

a vehicle control crash management interface coupled to the estimator/best state vector subsystem and to the discrimination processor.

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